

REMARKS

The present Amendment amends claims 1, 2, 4, 6, 8, and 9, leaves claims 5, 10 and 11 unchanged, and cancels claims 3 and 7. Therefore, the present application has pending claims 1, 2, 4-6 and 8-11.

Drawings

The drawings were objected to as including reference characters not mentioned in the specification. Applicants amended the specification to include reference characters: 100, 110, 120, 130, 140, 150, 160, 170, 303 and 605. Therefore, Applicants respectfully request the Examiner to reconsider and withdraw this objection.

Specification

The disclosure was objected to because of informalities relating to the description of Fig. 6. Applicants have amended the specification to make the description consistent with the flow chart shown in Fig. 6. Therefore, Applicants respectfully request the Examiner to reconsider and withdraw this objection.

35 U.S.C. §102 Rejections

Claims 1-4 and 6-11 stand rejected under 35 U.S.C. §102(b) as being anticipated by Glover, et al. ("Glover"). As indicated above, claims 3 and 7 were canceled. Therefore, this rejection with respect to claims 3 and 7 is rendered moot. This rejection with respect to the remaining claims 1, 2, 4, 6, and 8-11 is traversed for the flowing reasons. Applicants submit that the features of the present invention, as now more clearly recited in claims 1, 2, 4, 6, and 8-11, are not taught or

suggested by Glover, whether taken individually or in combination with any of the other references of record. Therefore, Applicants respectfully request the Examiner to reconsider and withdraw this rejection.

Amendments were made to the claims so as to more clearly describe features of the present invention. Particularly, amendments were made to more clearly describe that the present invention is directed to database management method, apparatus and program as recited, for example, in independent claims 1, 8 and 9.

The present invention as recited in the claims 1, 8 and 9 provides a database management method, apparatus and program. The database management method includes a step of entering a database definition request, which specifies a database and access attribute information relating to the database. If the database access attribute information is an insert-only attribute, then the method also includes a step of authorizing data insertion and access to data in the database. The method also includes: specifying an attribute of a data deletion prohibition period; and disabling the change of the specified attribute for anyone other than the manager of the upper database level. The prior art does not teach or suggest all of these features.

The above described features of the present invention, now more clearly recited in the claims, are not taught or suggested by any of the references of record, particularly Glover, whether taken individually or in combination with each other.

Glover discloses a database management system. However, Glover does not teach or suggest specifying an attribute of a data deletion prohibition period, as recited in claims 1, 8 and 9. Furthermore, Glover does not teach or suggest

disabling change of the attribute after the attribute is specified, where the change of the attribute is not disabled to the manager at the upper database level.

Glover's database management system enables users of varying security levels to share a database, but prevents users from obtaining access to data for which they lack authorization. In this system, a database administrator who has control of sensitive information can use his discretion to determine whether a user has a "need-to-know" for the information. The discretionary component of the system is implemented by using access control lists (ACL), which are associated with specific data in the database. If a user's name is on the ACL, then he is allowed to access specific data. The system controls access to specific data by using a GRANT command. The grant command grants to users certain privileges, such as the ability to select, insert, delete and update data in the database. The database administrator can also write access control rules using a DEFINE PERMIT statement. This statement specifies which operations on specific data are permitted, which user can perform the operations, and a time (i.e., from time1 to time2 and on day1 to day2) during which the operations can be performed.

The database management method, apparatus and program, as recited in claims 1, 8 and 9, includes specifying a data deletion prohibition period. This feature differs from the teachings of Glover. In the present invention, for example, a period of time is specified, during which data deletion is prohibited. Glover does not specify a data deletion prohibition period in the manner claimed. As described on page 691, the 5th paragraph under *Discretionary Access Control*, Glover discloses a

DEFINE PERMIT statement that specifies a period of time during which data deletion is permitted. This permissive statement disclosed in Glover is quite different from the claimed step of specifying a time period during which data deletion is prohibited. The Examiner asserts that because the DEFINE PERMIT statement permits a time period during which an action may be performed, then it necessarily follows that any time outside of that time period results in a prohibition of performance of that action. However, Glover does not disclose specifying a data deletion prohibition period, as claimed.

Furthermore, unlike the present invention, Glover does not disclose the steps of authorizing the deletion of data if the deletion prohibition period has passed since the time the data to be deleted was registered, or prohibiting the deletion of data if the deletion prohibition period has not passed since the time the data to be deleted was registered, as recited in dependent claim 2. First, as discussed above, Glover does not disclose the claimed attribute of a data deletion prohibition period. As such, Glover cannot either authorize deletion or prohibit deletion based upon whether or not such data deletion prohibition period has passed, in the manner claimed. To the contrary, in Glover, the database management system uses the DEFINE PERMIT statement to permit certain operations for a specific time period. If the specified time period passes, then the operation is prohibited. This differs from the present invention because as recited in claim 2, if the specified time period passes, then deletion is authorized. Furthermore, in Glover, if the specified time period has not passed, then the operation is authorized. This feature differs from the present

invention because as recited in claim 2, if the specified time period has not passed, deletion is prohibited.

Therefore, Glover fails to teach or suggest “specifying at least an attribute of a data deletion prohibition period to said database and disabling change of said attribute is specified, wherein said attribute cannot be changed other than by a manager of an upper database level” as recited in claim 1, and as similarly recited in claims 8 and 9.

Furthermore, Glover fails to teach or suggest “if said data deletion prohibition period has passed since the time when said data to be deleted was registered, authorizing deletion of said data to be deleted; and if said data deletion prohibition period has not passed since the time when said data to be deleted was registered, prohibiting the deletion of said data to be deleted” as recited in claim 2.

Therefore, Glover fails to teach or suggest the features of the present invention as now more clearly recited in the claims. Accordingly, reconsideration and withdrawal of the 35 U.S.C. §102(b) rejection of claims 1, 2, 4, 6, and 8-11 is respectfully requested.

The remaining references of record have been studied. Applicants submit that they do not supply any of the deficiencies noted above with respect to the references used in the rejection of claims 1, 2, 4, 6, and 8-11.

35 U.S.C. §103(a) Rejections

Claim 5 stands rejected as being unpatentable over Glover in view of Prakash. Applicants submit that claim 5 is dependent on claim 1, and therefore, is

patentable at least for the same reasons discussed previously regarding the independent claims.

In view of the foregoing amendments and remarks, Applicants submit that claims 1, 2, 4-6 and 8-11 are in condition for allowance. Accordingly, early allowance of claims 1, 2, 4-6, and 8-11 is respectfully requested.

To the extent necessary, Applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of Mattingly, Stanger, Malur & Brundidge, P.C., Deposit Account No. 50-1417 (referencing attorney docket no. 500.42888X00).

Respectfully submitted,

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